



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,903	02/05/2004	Kuester Joern	EUR 50877/USw	5357

7590 06/22/2006

Patent Counsel  
Huntsman Polyurethanes  
10003 Woodloch Forest Drive  
The Woodlands, TX 77380

EXAMINER

COONEY, JOHN M

ART UNIT PAPER NUMBER

1711

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/772,903	<b>Applicant(s)</b> JOERN ET AL.	
	<b>Examiner</b> John m. Cooney	<b>Art Unit</b> 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19,22-24,26,28,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19,22-24,26,28,30 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4-18-06 has been entered.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19, 22-24, 26, 28, 30, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Bodnar et al.(5,143,945)

Bodnar et al. discloses preparations of polyisocyanurate based foams prepared by reacting isocyanates and isocyanate reactive materials, including polyester polyols in elevated amounts as claimed, at isocyanate indexes as claimed in the presence of blowing agents reading carboxylic acids and water in amounts as claimed by applicants, alkali metal salt trimerization catalysts and other catalysts in amounts as claimed, and functionalized and non-functionalized carboxylic acids, wherein the disclosed

Art Unit: 1711

preparations read on the methods and products of applicants' claims (see examples, as well as, the entire document).

The pKa in water values are values associated with the selection of carboxylic acid and are held to be inherent features of the teachings of Bodnar et al.

Anticipation by Bodnar et al. of the combinations of catalysts as claimed by applicants' is held to be evident as distinction between the urethane catalysts and trimerization catalysts of the claims is not established in the claims.

Claims 30-31 are not limited by the recited transitional language "consisting of" because the claims are open by the introductory transitional language "comprising". Further, the claims do not recite that the foaming agents of the systems are "blowing agent consists solely of water" so as to exclude any and all other foaming/blowing agents. Additionally, questions are raised as to carboxylic acids function in the role of blowing agent.

The following is set forth in addition to and as an alternative to the above rejection:

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-19, 22-24, 26, 28, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bodnar et al.(5,143,945)

Bodnar et al. discloses preparations of polyisocyanurate based foams prepared by reacting isocyanates and isocyanate reactive materials, including polyester polyols in elevated amounts as claimed, at isocyanate indexes as claimed in the presence of blowing agents reading on those claimed, alkali metal salt trimerization catalysts in amounts as claimed, and functionalized and non-functionalized carboxylic acids, wherein the disclosed preparations read on the methods and products of applicants' claims (see examples, as well as, the entire document).

The pKa in water values are values associated with the selection of carboxylic acid and are held to be inherent features of the teachings of Bodnar et al.

Bodnar et al. differs from applicants' claims as to the specific amounts and selection of catalysts for the function of trimerization and urethanization. However, Bodnar et al. discloses selection of catalysts in overlap with those of applicants' claims and disclosure for the purpose of imparting their catalyzing effect, including the role of trimerization and urethanization catalysis and the dual role of both (see column 8 line 32-column 9 line 45). Accordingly, it would have been obvious for one having ordinary skill in the art to have employed catalysts within the teachings of Bodnar et al. for the purpose of controlling trimerization and urethanization effects during product formation in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results. Further, though selection of amounts are not exact between Bodnar et al. and

Art Unit: 1711

applicants' claims, it has long been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimal or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233; *In re Reese* 129 USPQ 402 . Further, a prima facie case of obviousness has been held to exist where the proportions of a reference are close enough to those of the claims to lead to an expectation of similar properties. *Titanium Metals v Banner* 227 USPQ 773. **(see also MPEP 2144.05 I)**

Similarly, it has been held that discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272,205 USPQ 215 (CCPA 1980).

Applicants' claims differ from Bodnar et al. in that water is not particularly required. However, Bodnar et al. is clear as to employment of water being a preferred embodiment of their invention for the purposes of effecting the foaming effect. Accordingly, it would have been obvious for one having ordinary skill in the art to have employed water as the blowing agent of Bodnar et al. for the purpose of imparting the foaming effect in order to arrive at the products and processes of applicants' claims with the expectation of success in the absence of a showing of new or unexpected results.

Further, even if exclusion of other blowing agents was made evident in the claims, then rejection would not be overcome. All disclosures of the prior art, including unpreferred or auxiliary embodiments, must be considered in determining obviousness. *In re Mills*, 176 USPQ; *In re Lamberti*, 192 USPQ 278; *In re Boe*, 148 USPQ 507, and it has been held that omission of an element with consequent loss of function is obvious. *In re Kuehl* 177 USPQ 250; *In re Wilson* 153 USPQ 740. Also, it has been held that

Art Unit: 1711

omission of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

The following arguments have been set forth in the Office action mailed 1-10-06 and are maintained as still relevant applicable herein:

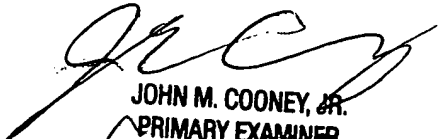
Applicants' arguments have been considered, but rejection is maintained for the reasons above. Bodnar et al.'s teaching is sufficient in its teaching of water and fluoroalkane blowing agents to a degree that anticipation is sufficiently maintained to be proper (see again, the examples, column 3 lines 42-49 and 55, column 4 lines 66 et seq., column 5 lines 1-22, and column 8 lines 11-31, as well as, the entire document). With regards to applicants' assertion that the examples do not recite the combinations of elevated amounts polyester polyol with the blowing agents as claimed, it is held that such is not evident. Patentees recite in their examples the use of water with the elevated polyester polyol amounts meeting the values of unspecified basis as claimed by applicants. Further, however, Bodnar et al. is not seen to be limited to that which is taught by their examples. Bodnar et al. recites specific embodiments for use of the elevated amounts of polyester polyols to the degree recited by the claims, and its full disclosure is complete in its teaching of the blowing agents of the claims to the degree that anticipation is maintained to be evident.

Applicants' latest arguments have been considered, but rejection is maintained for the reasons set forth above. It is maintained that Bodnar et al. teaches elevated amounts of polyester polyol to degrees supported by limitation in applicants' claims in combination with blowing agent(s) meeting the requirements in the claims as amended.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Cooney whose telephone number is 571-272-1070. The examiner can normally be reached on M-F from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
JOHN M. COONEY, JR.  
PRIMARY EXAMINER  
